ABSTRACT

AIM: The aim of the study was to evaluate the efficacy of chewable brush compared to manual brush on plaque removal and on salivary pH in school going children of age group 10 to 12 years.

METHOD: A total of 150 school going children aged 10-12 years were enrolled in the study. Prior to the experiment children received professional prophylaxis and requested to refrain from brushing for 24 hours. Baseline salivary pH changes were assessed with the help of pH strips and supra gingival plaque scores were examined using the simplified oral hygiene index (OHI-S). Data was analysed for the plaque reduction (pre brushing Vs post brushing) and alteration in the salivary pH.

RESULTS: Both the chewable and manual tooth brushes showed a significant reduction from 1.4178±0.58 to 0.7050±0.45 (chewable brush) and 1.3934±0.54 to 0.7682±0.39 (manual brush) in plaque scores after brushing (P= <0.001). Chewable brush (50.28 %) was more effective in reducing the plaque score when compared with the manual brush (44.86%) (p= 0.008). Tooth brushing with both the chewable brush and manual brush showed a significant rise in salivary pH from baseline pH score to post brushing pH score from 6.997±0.595 to 11.083±1.434 (chewable brush) 7.030±0.414 to 9.760±0.891(manual brush group) P<0.001. Chewable brush was more effective in increasing the salivary pH than the manual brush (p<0.001).

CONCLUSION: The experimental chewable brush was found to be relatively as effective as a manual brush in removing plaque and increasing the salivary pH. The chewable brush may be an appropriate oral hygiene aid for school children after a mid-day meal, including children with disabilities.

KEY WORDS: CHEWABLE BRUSH, PLAQUE REDUCTION, pH SCORE